

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
 Organization
 International Bureau



(43) International Publication Date
 12 August 2004 (12.08.2004)

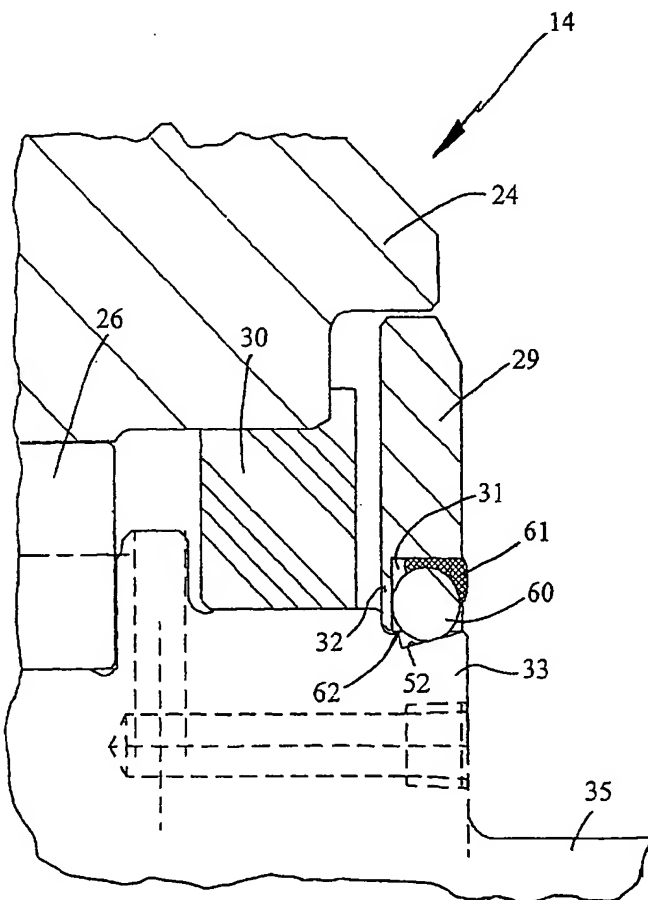
PCT

(10) International Publication Number
WO 2004/067900 A1

- (51) International Patent Classification⁷: **E21B 10/22** (74) Agent: CARLSSON Lars-Åke; Sandvik AB, Intellectual Property, S-811 81 Sandviken (SE).
- (21) International Application Number: PCT/SE2004/000116 (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SI, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 29 January 2004 (29.01.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
 0300228-4 30 January 2003 (30.01.2003) SE
- (71) Applicant (for all designated States except US): SANDVIK AB [SE/SE]; S-811 81 Sandviken (SE). (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,
- (72) Inventor; and
 (75) Inventor/Applicant (for US only): BROLUND, Stig-Åke [SE/SE]; Högbövägen 74A, S-811 32 Sandviken (SE).

[Continued on next page]

(54) Title: ROLLER CUTTER



(57) Abstract: The present invention relates to a roller cutter intended to be used at a drill head for rotary boring of the front of earth and rock formations. The roller cutter (14) is provided with rows of crushing members, rotatable in relation to a shaft (33), having a center line (CL) and arranged with shaft spigots (34, 35). The roller cutter (14) is provided with covers (29) arranged at axial ends of the hub (24) and the shaft (33) in order to protect sealing members (30) and in order to prevent dirt from reaching the interior of the roller cutter. The cover (29) comprises a radially directed projection (60), which is arranged to be received in an indentation (50) in the envelope surface of the shaft (33) in order to lock the cover axially in relation to the shaft.

WO 2004/067900 A1